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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,201	07/18/2003	Rudolf Neumann	057517/0009	2842
29619	7590	09/15/2005	EXAMINER	
SCHULTE ROTH & ZABEL LLP ATTN: JOEL E. LUTZKER 919 THIRD AVENUE NEW YORK, NY 10022			KRAUSE, JUSTIN MITCHELL	
			ART UNIT	PAPER NUMBER
			3682	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/623,201

Applicant(s)

NEUMANN, RUDOLF

Examiner

Justin Krause

Art Unit

3682

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) 13 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☒ Claim(s) 1-13 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/26/2004.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-12, drawn to hydrodynamic bearing system, classified in class 384, subclass 119.

II. Claim 13, drawn to a method of manufacturing a hydrodynamic bearing system, classified in class 29, subclass 898.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as not laser welding the shield to the sleeve.

3. During a telephone conversation with Anna Vishev on 12 September 2005, a provisional election was made without traverse to prosecute the invention of a hydrodynamic bearing system, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claim 13 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Information Disclosure Statement***

4. The Information Disclosure Statement submitted 26 July 2004 has been considered during examination.

***Oath/Declaration***

5. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Applicant has not given a post office address anywhere in the application papers as required by 37 CFR 1.33(a), which was in effect at the time of filing of the oath or declaration. A statement over applicant's signature providing a complete post office address is required.

***Drawings***

6. Figure 2b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
7. The drawings are objected to under 37 CFR 1.84(h)(5) because Figure 2 show(s) modified forms of construction in the same view. Figure 2 needs to be divided into 2 separate figures. One illustrating the preferred embodiment, and another illustrating the prior art.

8. The drawings are objected to for the use of general "arrowhead" reference lines that do not extend to the specific disclosed elements, leaving unclear exactly what they refer to.

Examples include but are not limited to:

22 and 18 in figure 2a meet at the same location. It is not clear what entity either reference character is directed at.

36 and 38 in figure 1 appear to refer to the same entity.

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 124 in figure 2b.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet"

or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

10. The disclosure is objected to because of the following informalities: Line 5 in paragraph 0011 of the specification is grammatically awkward.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichiyama (US Patent 6,066,903).

Ichiyama shows a spindle motor having a hydrodynamic bearing system comprising a shaft (12a), a bearing sleeve (18) having an inner cylindrical bore and the shaft inserted into the bore, a bearing gap formed therebetween and is filled with lubricant oil (44) and a shield member (22) encloses the bearing sleeve. Said shield is secured to an end surface of the sleeve and is distanced from the bearing gap.

With respect to claims 2 and 8, a bearing element (12b) is mounted on shaft (12a) and a gap is formed between the sleeve and the bearing element.

With respect to claims 3 and 9, a reservoir (20) is formed on the exterior surface of the bearing member (12).

With respect to claims 4 and 10, the end surface of the bearing sleeve has a recess distanced from the bearing gap; the rotary thrust plate (18b) creates a wall between the recess and the bearing gap.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 5, 6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichiyama in view of Miura et al (US Patent 6,375, 357).

Ichiyama shows the claimed subject matter as described above.

Ichiyama does not show a temperature barrier groove or specify the method of attaching the shield to the bearing sleeve to be laser welding.

Miura shows a spindle motor having a hydrodynamic bearing having a shield member 44 which is laser welded to the spindle (33) at the recess (60). (Column 12, line 13-23). Spindle (33) has a relief groove in the area of 33b on the interior side of the welded joint.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Ichiyama and Miura and laser weld the

shield in place. The motivation being welding permanently seals the surface and is the least likely of common metal joining methods to deteriorate. The addition of the relief groove behind the welded joint is known to provide an area for the joint to expand and slightly deform under the heat of welding and also prevents transfer of significant heat from the welding operation to the surrounding area.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,583,952 shows a motor with hydrodynamic bearing having a seal shield.

6,672,766 shows a hydrodynamic bearing having a seal shield.

5,993,066 shows hydrodynamic bearing with reservoir.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Krause whose telephone number is 571-272-3012. The examiner can normally be reached on Monday - Friday, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*JMK*  
*9/13/05*

  
Thomas R. Harmon  
Primary Examiner